

What is Claimed is,

1. An analysis apparatus comprising

a first analysis unit for sampling a sample using a disposable nozzle tip,

5 a second analysis unit for sampling the sample using a repetitively used pipette nozzle,

a transportation means for transporting a specified sample to respective sampling position of said first and said second analysis unit, said specified sample being analyzed in
10 said first and said second analysis units, and

a controller for controlling said transportation means so that said specified sample is moved to said sampling position of said first analysis unit before said specified sample is sampled at said second analysis unit, and said specified sample
15 is moved to said sampling position of said second analysis unit after said specified sample is sampled at the sampling position at said first analysis unit.

2. An analysis apparatus as defined in claim 1, wherein
20 characterized by further comprising

a standby part for letting a sample stand by, said sample being already sampled at the first analysis unit and not being sampled at the second analysis unit yet, wherein

when measurement result of the specified sample obtained
25 at said first analysis unit needs re-measurement of the specified sample, said controller transports said specified sample from said standby part to said sampling position of said first analysis unit in order to re-measure said specified sample, before moving said specified sample to said sampling position

of said second analysis unit.

3. An analysis apparatus as defined in claim 2, wherein characterized by further comprising

5 a storage means for storing a re-measurement logic for judging whether said re-measurement of the specified sample is needed, and

a selection means for automatically selecting whether to execute said re-measurement logic relating to analysis item of
10 said specified sample.

4. An analysis apparatus as defined in claim 3, wherein characterized in that

said re-measurement logic judges conditions
15 always to be executed, to be executed if being apart from a measurement range, and to be executed depending on difference between present measured value and former measured value of the specified sample of the same subject.

20 5. An analysis apparatus as defined in claim 3, wherein characterized by further comprising

a storage means for storing a algorism for using a analysis channel for said re-measurement relating to the specified sample which is judged to need said re-measurement
25 while said sample stands by part at said standby part, and

a selection means for selecting whether to use the same analysis channel as that used before said re-measurement relating to said analysis item of said specified sample.

said algorithm stored in said storage means contains conditions to use said same analysis channel as that used before said re-measurement, and to use a different analysis channel as that used before said re-measurement.

10 said first analysis unit measures a label substance after
an immune reaction between a substance to be analyzed and the
label substance, and said second analysis unit measures an
optical characteristic of a reaction solution produced by a
chemical reaction between the sample and a reagent.

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8. An analysis apparatus for sampling a sample from a single sample bottle to a plurality of receiving containers by using a plurality of sample pipetting devices, and for analyzing the each sample received in each of the receiving containers,

20 wherein characterized by comprising

first pipetting device using a disposable nozzle tip and
second pipetting device using a repetitively used pipette
nozzle included in said plurality of sample pipetting devices,
and

25 a control part for controlling sampling movement of said first and second pipetting devices, wherein said control part controls said second pipetting device so as to sample the sample from a same sample bottle after said first pipetting devices samples said sample from the same sample bottle.

9. An analysis apparatus comprising a rack introducing unit for introducing a sample rack having a sample, a plurality of analysis units for analysis-processing the sample, and a rack transporting apparatus for transporting the sample rack coming out from said rack introducing unit to at least one of said plurality of analysis units, wherein characterized by further by further comprising

a first analysis unit having a first pipetting device using a disposable nozzle tip and a second analysis unit having a second pipetting device using a repetitively used pipette nozzle are included in said plurality of analysis units,

a storage means for storing a specified analysis item necessary for sample sampling by said nozzle tip, wherein said sample rack having a sample to be analyzed on said specified analysis item is transported to said first analysis unit before being transported to the other analysis apparatus, and is executed sample sampling for said specified analysis item using said nozzle tip.

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10. An analysis apparatus as defined in claim 9, wherein characterized by further comprising

a display unit for display a screen for specifying said specified analysis item, and

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a control unit for recognizing a sample including said specified analysis item among a plurality of analysis items instructed to be analyzed and controlling said rack transporting apparatus so that a sample rack having said recognized sample is transported to said first analysis unit

in the first place of sample sampling processing.

11. An analysis apparatus as defined in claim 10, wherein characterized in that

5 said screen displayed by said display unit comprises an analysis item selecting section capable of selecting one or more analysis items out of a plurality of analysis items, and a level instructing section capable of instructing a carry-over avoiding level corresponding to the selected analysis item.

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12. An analysis apparatus as defined in claim 9, wherein characterized in that

15 said plurality of analysis units are arranged along a transporting path of said rack transporting apparatus, and a sample rack having samples not requiring analysis of said specified analysis item is transported so as to be let drop in at said plurality of analysis units in arranging order depending on necessity.

20 13. An analysis apparatus comprising a rack transporting apparatus for transporting the sample rack having a sample, a rack supply unit for supplying said rack to said rack transporting apparatus, a rack stoker for storing the transported rack, a plurality of analysis units for sampling
25 a sample from the sample rack transported by said rack transporting apparatus to process analysis, a standby unit for letting the sample rack finished sampling of sample in any one out of said plurality of analysis units temporarily stand by therein, and a returning line capable of returning the sample

rack standing-by in said standby unit to an entrance side of said rack transporting apparatus, said analysis apparatus characterized by further comprising

5 a first analysis unit having a pipetting device using a disposable nozzle tip and a second and a third analysis apparatus having a pipetting device using a repetitively used pipette nozzle are included in said plurality of analysis units, said plurality of analysis units being arranged at positions in the order of the third analysis apparatus, the first analysis
10 unit and the second analysis unit from the side near said rack supply unit, and

a control part to control, wherein, relating to a specified sample rack having a specified sample necessary for analysis measurement in said first, said second and said third
15 analysis units, the specified sample rack being transported to said first analysis unit to execute sample sampling using said nozzle tip first, then said specified sample rack being let stand by in said standby unit, said specified sample rack on standby in said standby unit being transferred to said rack
20 transporting apparatus through said returning line when re-measurement of said specified sample by said first analysis unit is determined to be necessary, then sample sampling for the re-measurement in said first analysis unit being executed.

25 14. An analysis apparatus according to claim 13, wherein characterized in that

said specified sample rack having said specified sample finished sampling of sample for re-measurement is transferred to said rack transporting apparatus through said returning line,

and then said specified sample is sampled in said third analysis apparatus and/or said second analysis unit.

15. An analysis apparatus according to claim 13, wherein
5 characterized in that

said specified sample rack on standby in said standby unit is transferred to said rack transporting apparatus through said returning line when re-measurement of said specified sample is determined to be unnecessary, and then said specified sample
10 is sampled in said third analysis apparatus and/or said second analysis unit.

16 An analysis apparatus according to claim 13, wherein characterized in that

15 said first analysis unit is to obtain a measured value of an analysis item utilizing an immune reaction between the sample and a reagent, and said second analysis unit is to obtain a measured value of an analysis item utilizing a chemical reaction between the sample and a reagent, and said third
20 analysis apparatus is to obtain a measured value of an electrolytic component in the sample using an ion selective electrode.

17. An analysis apparatus according to claim 13, wherein
25 characterized in that

said standby unit has plurality of said standby parts which are respectively attached said first, second and third analysis units.

18. A method of handling a body fluid sample positioning a sample rack having a sample to at least one out of a plurality of analysis units, and processing analysis of the sample sampled on said sample rack in said analysis apparatus, the method
5 comprising the steps of

processing said sample by an analyzer having a first analysis unit having a first pipetting device using a disposable nozzle tip and a second analysis unit having a second pipetting device using a repetitively used pipette nozzle,

10 transporting a specified sample rack having a specified sample to be analyzed in said first and said second analysis unit to said first analysis unit to sample said specified sample in said first analysis unit in prior to transferring said sample rack to said second analysis unit,

15 letting said specified sample rack finished sampling of sample in said first analysis unit temporarily stand by in a standby unit before transporting said specified sample rack to said second analysis unit,

judging whether or not re-measurement of said specified
20 sample by said first analysis unit is necessary,

transporting said specified sample rack from said standby unit to said second analysis unit and sampling said specified sample by said pipette nozzle if the result of judgment is that re-measurement of said specified sample by said first analysis
25 unit is not necessary,

transporting said specified sample rack from said standby unit to said first analysis unit and sampling said specified sample for re-measurement in said first analysis unit if the result of judgment is that re-measurement of said specified

sample by said first analysis unit is necessary, and

transporting said specified sample rack finished
sampling of the sample for re-measurement to said second
analysis unit and sampling said specified sample by said pipette
5 nozzle.

19. A method of handling a body fluid samples for analyzing
plural kinds of analysis items of sample based on reaction
between said samples and reagent in a reaction container in an
10 analyzing part, said method comprising the steps of

displaying a screen on a display device for selecting said
analysis items and displaying an indication section on said
display device for indicating necessity to avoid affection of
carry-over between said samples relating to selected analysis
15 item on said screen,

executing sampling of said sample of said analysis item
not indicated said necessity, after executing sampling of said
sample of said analysis item indicated said necessity, when said
samples are sampled at said analysis part.

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20. A method of handling a body fluid samples as defined in
claim 19, wherein characterized in that

an information to show said necessity is stored in a
storage part relating to said analysis item indicated said
25 necessity, and when the same analysis item is selected to set
a new analysis condition, said information stored in the storage
means is output to said display device.

21. A method of handling a body fluid samples for executing

a sample sampling relating to analysis items of said samples by using a analysis apparatus having plurality of analysis parts to be able to sample said samples, said method comprising the steps of

5 including a first analysis part for receiving said sample to be sampled by using a nozzle tip exchanged when said sample is exchanged and a second analysis part for receiving said sample to be sampled by using a pipette nozzle used commonly for the different samples,

10 executing sampling of said specified sample at said first analysis part for the analysis item having a higher level for avoiding said carry-over, before executing sampling of said sample for the analysis item having a lower level for avoiding said carry-over, when said specified samples to be analyzed
15 plurality of analysis items having different levels for avoiding said carry-over are sampled, and

executing sampling of said specified sample at said second analysis part for the analysis item having a lower level for avoiding said carry-over, after said analysis item analyzed
20 at said first analysis part having a higher level for avoiding said carry-over is judged not to need re-measurement.